

CLAIMS

What is claimed is:

1. A processor for processing an audio signal prior to encoding said audio signal, said processor comprising means for modifying said audio signal to a preferred signal format for digitalization.
2. The processor of claim 1 wherein said preferred signal format comprises a modified audio signal based on said audio signal.
3. A processor for processing an audio signal prior to encoding said audio signal, said processor comprising:
 - means for receiving said audio signal;
 - first means for nominalizing said audio signal,
said first means for nominalizing said audio signal in electronic communication with said means for receiving said audio signal;
 - means for compressing said audio signal,
said means for compressing said audio signal in electronic communication with said first means for nominalizing said audio signal;
 - means for equalizing said audio signal,
said means for equalizing said audio signal in electronic communication with said means for compressing said audio signal;
 - second means for nominalizing said audio signal,
said second means for nominalizing said audio signal in electronic communication with said means for equalizing said audio signal; and
 - means for outputting said audio signal,
said means for outputting said audio signal in electronic communication with said second means for nominalizing said audio signal.

4. The processor of claim 3 wherein said audio signal comprises an analog signal.
5. The processor of claim 3 wherein said audio signal comprises a monophonic signal.
6. The processor of claim 3 wherein said audio signal comprises a stereophonic signal.
7. The processor of claim 3 wherein said audio signal was extracted from a composite video signal, said composite video signal comprising said audio signal.
8. The processor of claim 3 wherein said system is powered by a 12 volt A.C. regulated power supply in electronic communication therewith.

9. The processor of claim 3 wherein said means for receiving said audio signal has an input impedance of about 50k Ohms.

10. The processor of claim 3 wherein said first means for nominalizing said audio signal operates to nominalize said audio signal in accordance with a characteristic of said audio signal.

11. The processor of claim 10 wherein said characteristic comprises a voltage of said audio signal.

12. The processor of claim 3 wherein said first means for nominalizing said audio signal is user-adjustable.

13. The processor of claim 3 wherein said first means for nominalizing said audio signal operates to nominalize said audio signal according to a pre-defined threshold.

14. The processor of claim 13 wherein said pre-defined threshold comprises a pre-defined level input.

15. The processor of claim 14 wherein said pre-defined level input ranges from about – 20 dBu to about +6 dBu.

16. The processor of claim 15 wherein said pre-defined level input is about –10 dBu nominal.

17. The processor of claim 3 wherein said first means for nominalizing said audio signal comprises means for amplifying said audio signal.

18. The processor of claim 3 wherein said first means for nominalizing said audio signal comprises means for attenuating said audio signal.

11/11/2011 10:00:00 AM

19. The processor of claim 3 wherein said means for compressing said audio signal operates to compress said audio signal in accordance with a characteristic of said audio signal.

20. The processor of claim 19 wherein said characteristic comprises a voltage of said audio signal.

21. The processor of claim 3 wherein said means for compressing said audio signal operates to compress said audio signal according to a pre-defined compression ratio.

22. The processor of claim 21 wherein said pre-defined compression ratio ranges from about 10:1 to about 2:1.

23. The processor of claim 22 wherein said pre-defined compression ratio is about 4:1 at +6 dBu.

24. The processor of claim 3 wherein said means for compressing said audio signal operates to compress said audio signal according to a pre-defined attack time.

25. The processor of claim 24 wherein said pre-defined attack time ranges from about 1 second to about 200 ms.

26. The processor of claim 25 wherein said pre-defined attack time is about 500 ms.

27. The processor of claim 3 wherein said means for compressing said audio signal operates to compress said audio signal according to a pre-defined release time.

28. The processor of claim 27 wherein said pre-defined release time ranges from about 300 ms to about 50 ms.

29. The processor of claim 28 wherein said pre-defined release time is about 150 ms.

2025 RELEASE UNDER E.O. 14176

30. The processor of claim 3 wherein said means for equalizing said audio signal comprises a multi-band equalizer.

31. The processor of claim 30 wherein said multi-band equalizer comprises a two-band shelving equalizer for attenuating high and low frequencies.

32. The processor of claim 31 wherein said two-band shelving equalizer operates to equalize said audio signal at about +3 dBu at about 80 Hz and about +4 dBu at about 12,000 Hz.

33. The processor of claim 30 wherein said multi-band equalizer is user-adjustable.

34. The processor of claim 3 wherein said second means for nominalizing said audio signal operates to nominalize said audio signal in accordance with a characteristic of said audio signal.

35. The processor of claim 34 wherein said characteristic comprises a voltage of said audio signal.

36. The processor of claim 3 wherein said second means for nominalizing said audio signal is user-adjustable.

37. The processor of claim 3 wherein said second means for nominalizing said audio signal operates to nominalize said audio signal according to a pre-defined threshold.

38. The processor of claim 37 wherein said pre-defined threshold comprises a pre-defined level input.

39. The processor of claim 38 wherein said pre-defined level input ranges from about -1 dBu to about +10 dBu.

40. The processor of claim 39 wherein said pre-defined level input is about -10 dBu nominal.

41. The processor of claim 3 wherein said second means for nominalizing said audio signal comprises means for amplifying said audio signal.

42. The processor of claim 3 wherein said second means for nominalizing said audio signal comprises means for attenuating said audio signal.

41. The processor of claim 3 wherein said second means for nominalizing said audio signal comprises means for amplifying said audio signal.

43. The processor of claim 3 wherein said means for outputting said audio signal has an output impedance of about 470 Ohms.

44. The processor of claim 3 wherein said means for outputting said audio signal comprises multiple output channels.

45. The processor of claim 44 wherein said multiple output channels comprise three output channels.

For information only

46. The processor of claim 3 further comprising:

means for enhancing said audio signal if said audio signal comprises a voice audio signal,
said means for enhancing said audio signal in electronic communication
with said means for compressing said audio signal, and also in electronic
communication with said means for equalizing said audio signal.

5

47. The processor of claim 46 wherein said means for enhancing said audio signal
comprises means for controlling reverberation.

48. The processor of claim 46 wherein said means for enhancing said audio signal is
user-adjustable.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

49. The processor of claim 3 further comprising:

means for monitoring said audio signal,

said means for monitoring said audio signal in electronic communication

with said first means for nominalizing said audio signal, and also in electronic communication

with said means for compressing said audio signal, and also in electronic communication

with said second means for nominalizing said audio signal.

50. The processor of claim 49 wherein said means for monitoring said audio signal

comprises means for monitoring said first means for nominalizing said audio signal.

51. The processor of claim 49 wherein said means for monitoring said audio signal

comprises means for monitoring said second means for nominalizing said audio signal.

52. The processor of claim 3 further comprising:

means for amplifying said audio signal,
said means for amplifying said audio signal in electronic communication
with said second means for nominalizing said audio signal.

53. The processor of claim 52 further comprising:

means for outputting said amplified audio signal,
said means for outputting said amplified audio signal in electronic communication
with said means for amplifying said audio signal.

54. The processor of claim 53 wherein said means for outputting said amplified audio
signal is user-adjustable.

55. The processor of claim 3 further comprising:

means for encoding said audio signal,
said means for encoding said audio signal in electronic communication
with said means for outputting said audio signal.

56. The processor of claim 55 wherein said means for encoding said audio signal
operates to convert said audio signal into a digital data stream.

57. The processor of claim 56 wherein said means for encoding said audio signal
comprises an analog-to-digital converter.

58. The processor of claim 56 wherein said means for encoding said audio signal
comprises a codec.

59. The processor of claim 56 further comprising:

means for stream broadcasting said digital data stream,
said means for stream broadcasting said digital data stream in electronic communication
with said means for encoding said audio signal.

60. The processor of claim 59 further comprising:

means for decoding said digital data stream,
said means for decoding said digital data stream in electronic communication
with said means for stream broadcasting said digital data stream.

61. The processor of claim 60 wherein said means for decoding said digital data stream
operates to convert said digital data stream into said audio signal.

62. The processor of claim 61 wherein said means for decoding said digital data stream comprises a digital-to-analog converter.

63. The processor of claim 61 wherein said means for decoding said digital data stream comprises a codec.

64. The processor of claim 61 wherein said means for decoding said digital data stream comprises a digital-to-analog converter and a codec.

64. The processor of claim 3 further comprising:

means for receiving a composite video signal,
said means for receiving said composite video signal in electronic communication
with said means for receiving said audio signal.

65. The processor of claim 64 further comprising:

means for amplifying said composite video signal,
said means for amplifying said composite video signal in electronic communication
with said means for receiving said composite video signal.

66. The processor of claim 65 further comprising:

means for outputting said composite video signal,
said means for outputting said composite video signal in electronic communication
with said means for amplifying said composite video signal.

67. The processor of claim 66 wherein said means for outputting said composite video
signal comprises multiple output channels.

68. The processor of claim 67 wherein said multiple output channels comprise three
output channels.

69. A method for processing an audio signal prior to encoding said audio signal, said method comprising modifying said audio signal to a preferred signal format for digitalization.

70. The method of claim 69 wherein said preferred signal format comprises a modified audio signal based on said audio signal.

71. A method for processing an audio signal prior to encoding said audio signal, said method comprising steps of:

receiving said audio signal;

first nominalizing said audio signal;

compressing said audio signal;

equalizing said audio signal;

second nominalizing said audio signal; and

outputting said audio signal.

72. The method of claim 71 wherein said audio signal comprises an analog signal.
73. The method of claim 71 wherein said audio signal comprises a monophonic signal.
74. The method of claim 71 wherein said audio signal comprises a stereophonic signal.
75. The method of claim 71 wherein said audio signal was extracted from a composite video signal, said composite video signal comprising said audio signal.

76. The method of claim 71 wherein said step of first nominalizing said audio signal nominalizes said audio signal in accordance with a characteristic of said audio signal.

77. The method of claim 76 wherein said characteristic comprises a voltage of said audio signal.

78. The method of claim 71 wherein said step of first nominalizing said audio signal is user-adjustable.

79. The method of claim 71 wherein said step of first nominalizing said audio signal nominalizes said audio signal according to a pre-defined threshold.

80. The method of claim 79 wherein said pre-defined threshold comprises a pre-defined level input.

81. The method of claim 80 wherein said pre-defined level input ranges from about -20 dBu to about +6 dBu.

82. The method of claim 81 wherein said pre-defined level input is about -10 dBu nominal.

83. The method of claim 71 wherein said step of first nominalizing said audio signal amplifies said audio signal.

85. The method of claim 71 wherein said step of compressing said audio signal comprises compressing said audio signal in accordance with a characteristic of said audio signal.

86. The method of claim 85 wherein said characteristic comprises a voltage of said audio signal.

87. The method of claim 71 wherein said step of compressing said audio signal comprises compressing said audio signal according to a pre-defined compression ratio.

88. The method of claim 87 wherein said pre-defined compression ratio ranges from about 10:1 to about 2:1.

89. The method of claim 88 wherein said pre-defined compression ratio is about 4:1 at +6 dBu.

90. The method of claim 71 wherein said step of compressing said audio signal comprises compressing said audio signal according to a pre-defined attack time.

91. The method of claim 90 wherein said pre-defined attack time ranges from about 1 second to about 200 ms.

92. The method of claim 91 wherein said pre-defined attack time is about 500 ms.

93. The method of claim 71 wherein said step of compressing said audio comprises compressing said audio signal according to a pre-defined release time.

94. The method of claim 93 wherein said pre-defined release time ranges from about 300 ms to about 50 ms.

95. The method of claim 94 wherein said pre-defined release time is about 150 ms.

96. The method of claim 71 wherein said step of equalizing said audio signal comprises equalizing said audio signal with a multi-band equalizer.

97. The method of claim 96 wherein said multi-band equalizer comprises a two-band shelving equalizer for attenuating high and low frequencies.

98. The method of claim 97 wherein said two-band shelving equalizer operates to equalize said audio signal at about +3 dBu at about 80 Hz and about +4 dBu at about 12,000 Hz.

99. The method of claim 96 wherein said multi-band equalizer is user-adjustable.

100. The method of claim 71 wherein said step of second nominalizing said audio signal comprises nominalizing said audio signal in accordance with a characteristic of said audio signal.

101. The method of claim 100 wherein said characteristic comprises a voltage of said audio signal.

102. The method of claim 71 wherein said step of second nominalizing said audio signal is user-adjustable.

103. The method of claim 71 wherein said step of second nominalizing said audio signal comprises nominalizing said audio signal according to a pre-defined threshold.

104. The method of claim 103 wherein said pre-defined threshold comprises a pre-defined level input.

105. The method of claim 104 wherein said pre-defined level input ranges from about -1 dBu to about +10 dBu.

106. The method of claim 105 wherein said pre-defined level input is about -10 dBu nominal.

107. The method of claim 71 wherein said step of second nominalizing said audio signal comprises amplifying said audio signal.

108. The method of claim 71 wherein said step of second nominalizing said audio signal comprises attenuating said audio signal.

109. The method of claim 71 wherein said step of outputting said audio signal comprises outputting said audio signal to multiple output channels.

110. The method of claim 109 wherein said multiple output channels comprise three output channels.

111. The method of claim 71 further comprising a step of enhancing said audio signal if said audio signal comprises a voice audio signal.

112. The method of claim 111 wherein said step of enhancing said audio signal comprises controlling reverberation.

113. The method of claim 111 wherein said step of enhancing said audio signal is user-adjustable.

114. The method of claim 71 further comprising a step of monitoring said audio signal.

115. The method of claim 114 wherein said step of monitoring said audio signal comprises monitoring said step of first nominalizing said audio signal.

116. The method of claim 114 wherein said step of monitoring said audio signal comprises monitoring said step of second nominalizing said audio signal.

117. The method of claim 71 further comprising a step of amplifying said audio signal.

118. The method of claim 117 further comprising a step of outputting said amplified audio signal.

119. The method of claim 118 wherein said step of outputting said amplified audio signal is user-adjustable.

120. The method of claim 71 further comprising a step of encoding said audio signal.

121. The method of claim 120 wherein said step of encoding said audio signal comprises converting said audio signal into a digital data stream.

122. The method of claim 121 further comprising a step of stream broadcasting said digital data stream.

123. The method of claim 122 further comprising a step of decoding said digital data stream.

124. The method of claim 123 wherein said step of decoding said digital data stream comprises converting said digital data stream into said audio signal.

125. The method of claim 71 further comprising a step of receiving a composite video signal.

126. The method of claim 125 further comprising a step of amplifying said composite video signal.

127. The method of claim 126 further comprising a step of outputting said composite video signal.

128. The method of claim 127 wherein said step of outputting said composite video signal comprises outputting said composite video signal to multiple output channels.

129. The method of claim 128 wherein said multiple output channels comprise three output channels.